

ABSTRACT

There is a problem in that when the demand accuracy with respect to a semiconductor pattern dimension comes close to a resist molecule size with miniaturization, the device performance is deteriorated due to edge roughness of a resist pattern to exert a bad influence on the system performance.

The present invention overcomes the problem by the procedure in which super-molecules which are small in dimension as compared with the conventional polymers are used as main components, the reaction number required for the change of molecule solubility is made constant and as large as possible, and an acid generator is made clathrate or combinatory n super molecules to make an acid catalyst concentration large.

As a result, it is possible to form a pattern of molecular accuracy with high productivity even with respect to the pattern dimension less than 50 nm, thereby realizing the high performance system.